

What Is Claimed Is:

1. A solid-state imaging element, comprising:
unit pixels, arranged in a matrix form, which have photoelectric transfer elements, transfer switches for transferring charges stored in said photoelectric transfer elements, charge store parts for storing charges transferred by said transfer switches, reset switches for resetting said charge store parts, and amplifying elements for outputting signals in accordance with the potential of said charge store parts to vertical signal lines;

a vertical scanning circuit for selecting pixels in units of rows by controlling a reset potential afforded to said reset switches;

a horizontal scanning circuit for sequentially selecting signals output to said vertical signal lines in units of columns; and

an output circuit for outputting signals selected by said horizontal scanning circuit via horizontal signal lines.

2. A solid-state imaging element as claimed in claim 1, wherein said vertical scanning circuit affords vertical selection pulses sequentially output during vertical scanning to said reset switches as a reset

potential thereof.

3. A solid-state imaging element as claimed in claim 1, wherein said charge store part is floating diffusion.

4. A solid-state imaging element as claimed in claim 1, wherein said reset switches comprise a depression type transistor.

5. A solid-state imaging element as claimed in claim 1, wherein said output circuit outputs signals read into said vertical signal lines in voltage mode.

6. A solid-state imaging element as claimed in claim 1, wherein said output circuit outputs signals read into said vertical signal lines in current mode.

7. A solid-state imaging element as claimed in claim 1, wherein said unit pixels include an overflow path between said photoelectric transfer element and an area to which a pixel source voltage is afforded, said overflow path being used to discharge excess charges of said photoelectric transfer element.

8. A solid-state imaging element as claimed in claim 1, wherein a negative potential is applied to the control electrode of said transfer switches.

9. A solid-state imaging element as claimed in claim 1, wherein said unit pixels include a transfer

selection switch for selecting a transfer operation of said transfer switches.

10. A solid-state imaging element as claimed in claim 9, wherein said transfer selection switch makes a controlled input of said vertical selection pulses.

11. A solid-state imaging element as claimed in claim 9, wherein said output circuit outputs signals read into said vertical signal lines in current mode.

12. A method for driving a solid-state imaging element including unit pixels, arranged in a matrix form, which have photoelectric transfer elements, transfer switches for transferring charges stored in said photoelectric transfer elements, charge store parts for storing charges transferred by said transfer switches, reset switches for resetting said charge store parts, and amplifying elements for outputting signals in accordance with the potential of said charge store parts to vertical signal lines, said method comprising the step of:

selecting pixels in units of rows by controlling a reset potential afforded to said reset switches.

13. A method for driving a solid-state imaging element as claimed in claim 12, further comprising the step of:

outputting signals read into said vertical signal lines in voltage mode.

14. A method for driving a solid-state imaging element as claimed in claim 12, further comprising the step of:

outputting signals read into said vertical signal lines in current mode.

15. A camera system using a solid-state imaging element as an imaging device, said solid-state imaging element, comprising:

unit pixels, arranged in a matrix form, which have photoelectric transfer elements, transfer switches for transferring charges stored in said photoelectric transfer elements, charge store parts for storing charges transferred by said transfer switches, reset switches for resetting said charge store parts, and amplifying elements for outputting signals in accordance with the potential of said charge store parts to vertical signal lines;

a vertical scanning circuit for selecting pixels in units of rows by controlling a reset potential afforded to said reset switch;

a horizontal scanning circuit for sequentially selecting signals output to said vertical signal lines

in units of columns; and

an output circuit for outputting signals
selected by said horizontal scanning circuit via
horizontal signal lines.